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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,479	10/01/2003	Kenneth C. Shuey	ABME-0806/B970162	7529

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EXAMINER

BORISSOV, IGOR N

ART UNIT	PAPER NUMBER
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3628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/676,479

Applicant(s)

SHUEY ET AL.

Examiner

Igor N. Borissov

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Amendments received on 10/06/2006 is acknowledged and entered. Claims 17 and 22 have been amended. Claims 17-22 are currently pending in the application.

Terminal Disclaimer is acknowledged and entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (US 5,963,146) in view of Suzuki et al. (US 5,892,912).

Johnson et al. (Johnson) teaches an automated meter reading system comprising a plurality of utility meters for measuring and recording metered data; a plurality of nodes (cell nodes), each node communicating with a number of designated meters to read the meter data; a plurality of gateways (intermediate data terminal), each gateway communicating with a number of the nodes to receive the meter data; a data network (WAN) interfaced to communicate with the plurality of gateways, and a host server (Central Data Terminal) interfaced with the data network to receive the meter data read from the gateways, wherein said meters are grouped in a plurality of cells, each cell having a node; and wherein a plurality of nodes are grouped to be assigned to a plurality of gateways; and wherein said host server maintaining a topology database, wherein said topology database comprising:

first electronic data representative of meter assignments to at least one node;
second electronic data electronically keyed to said first electronic data and
representative of node assignments to at least one gateway;

third electronic data electronically keyed to the second electronic data for
grouping together a plurality of nodes to define groups of noninterfering nodes based at
least in part on the node assignments; and

forth electronic data electronically keyed to the second electronic data for
grouping together a plurality of gateways to define sets of noninterfering gateways
(Figs. 1, 6, 12, 13; C. 3, L. 45-65; C. 5, L. 12-29).

Johnson does not specifically teach the specifics of data structure defining
association of groups of nodes.

Suzuki et al. (Suzuki) teaches an automated system for managing a plurality of
nodes on a network, comprising a plurality of network nodes (meters) communicating
with a designated switching hub (node), a plurality of switching hubs communicating
with servers over the WAN, wherein said servers provide resources to the individual
switching hubs. In use, the VLAN server stores MAC addresses of the nodes connected
to the ports of the individual switching hubs, and VLAN identifiers specifying groups to
which the respective nodes etc. belong. The file server stores document or data files.
Each of the servers also is a node having a communication function, like the other
nodes, and has a MAC address associated therewith and a VLAN identifier specifying a
groups to which it belongs (C. 2, L. 47-65; C. 4, L. 55-65).

It would have been obvious to one having ordinary skill in the art at the time the
invention was made to modify Johnson to include the specifics of data structure defining
association of groups of nodes, as disclosed in Suzuki, because it would
advantageously allow to facilitate the management process of the network, thereby
enhancing the efficiency of the system performance.

Claims 18-21, see reasoning applied to claim 17.

Furthermore, as per claim 18, the claim includes the following language:

... wherein said host server stores information related to the topology of gateways, nodes, meters, and their respective interconnections and/or interfaces", which appears to recite an intended use of the system, and does not recite structural elements.

Therefore, said language is given no patentable weight. MP E P 2106 (II) (C) states:

"Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation."

Claims Directed to an Apparatus must be distinguished from the prior art in terms of structure rather than function, *In re Danly* 263 F.2d 844, 847, 120 USPQ 528-531 (CCPA 1959).

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (bd Pat. App. & Inter. 1987). Same reasoning are applied to the remaining claims.

Response to Arguments

Applicant's arguments filed 10/06/2006 have been fully considered but they are not persuasive.

Applicant argues that the prior art does not teach the following features of the host server of the system: "the host server maintain[s] a topology database that holds... third electronic data ... for grouping together a plurality of nodes to define groups of noninterfering nodes based at least in part on the node assignments; and fourth electronic data ... for grouping together a plurality of gateways to define sets of noninterfering gateways."

In response to this argument, the examiner points out that said "supporting" feature of the server, specifically "grouping together a plurality of nodes" and "grouping together a plurality of gateways" is not recited in the claim in such a way as to imply the embedded functionality of the server supporting said feature. As currently recited, claim language defines the system (apparatus) as having the following structural elements: a

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plurality of utility meters; a plurality of nodes, each node communicating with a number of designated meters to read the meter data; a plurality of gateways, each gateway communicating with a number of the nodes to receive the meter data; a data network (WAN) interfaced to communicate with the plurality of gateways; and a host server (configured to) maintain[ing] a topology database. Further, there is a recitation of the content of said database, without any indication of functionality for which said server has to be configured to implement the applicant's invention. Furthermore, there is no indication in the dependent claims that said server is configured to access said database, and, using the stored data, to implement the functionality the applicant is arguing about.

As per grouping together a plurality of nodes and gateways to implement the non-interfering data transfer, the combination does, in fact, teach said features (see a discussion above).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

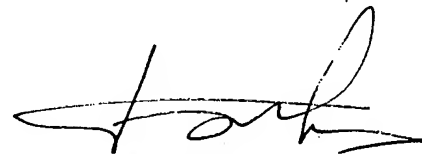
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igor Borissov whose telephone number is 571-272-6801. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IB

12/26/2006



IGOR N. BORISSOV
PRIMARY EXAMINER